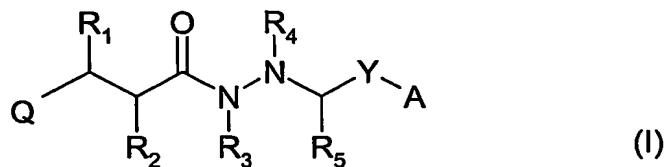


## Claims:

1. A compound of formula (I) or a pharmaceutically or veterinarily acceptable salt, hydrate or solvate thereof



wherein

$\text{Q}$  represents a radical of formula  $-\text{N}(\text{OH})\text{CH}(=\text{O})$  or formula  $-\text{C}(=\text{O})\text{NH}(\text{OH})$ ;

$\text{Y}$  represents  $-\text{C}(=\text{O})-$ ,  $-\text{C}(=\text{S})-$ ,  $-\text{S}(=\text{O})-$ , or  $-\text{SO}_2-$ ;

$\text{R}_1$  represents hydrogen,  $\text{C}_1\text{-}\text{C}_6$  alkyl or  $\text{C}_1\text{-}\text{C}_6$  alkyl substituted by one or more halogen atoms, or, except when  $\text{Q}$  is a radical of formula  $-\text{N}(\text{OH})\text{CH}(=\text{O})$ , a hydroxy,  $\text{C}_1\text{-}\text{C}_6$  alkoxy,  $\text{C}_1\text{-}\text{C}_6$  alkenyloxy, halogen, amino,  $\text{C}_1\text{-}\text{C}_6$  alkylamino, or di-( $\text{C}_1\text{-}\text{C}_6$  alkyl)amino group

$\text{R}_2$  represents a substituted or unsubstituted  $\text{C}_1\text{-}\text{C}_6$  alkyl,  $\text{C}_1\text{-}\text{C}_3$  alkyl-O- $\text{C}_1\text{-}\text{C}_3$  alkyl,  $\text{C}_1\text{-}\text{C}_3$  alkyl-S- $\text{C}_1\text{-}\text{C}_3$  alkyl, cycloalkyl( $\text{C}_1\text{-}\text{C}_3$  alkyl)-, aryl( $\text{C}_1\text{-}\text{C}_3$  alkyl)-, heterocyclyl( $\text{C}_1\text{-}\text{C}_3$  alkyl)-, or  $\text{R}^1\text{R}^2\text{N-}\text{C}_1\text{-}\text{C}_3$  alkyl group wherein  $\text{R}^1$  represents hydrogen or  $\text{C}_1\text{-}\text{C}_3$  alkyl and  $\text{R}^2$  represents  $\text{C}_1\text{-}\text{C}_3$  alkyl, or  $\text{R}^1\text{R}^2\text{N-}$  represents a cyclic amino group;

$\text{R}_3$  and  $\text{R}_5$  independently represent hydrogen or a substituted or unsubstituted  $\text{C}_1\text{-}\text{C}_6$  alkyl group or  $\text{R}_3$  and  $\text{R}_5$  taken together with the carbon and nitrogen atoms to which they are respectively attached form a saturated heterocyclic ring of from 5 to 7 ring atoms, which may be fused to a second carbocyclic or heterocyclic ring, either of which rings may optionally be substituted;

$\text{R}_4$  represents hydrogen or a substituted or unsubstituted  $\text{C}_1\text{-}\text{C}_6$  alkyl,  $\text{C}_2\text{-}\text{C}_6$  alkenyl,

C<sub>2</sub>-C<sub>6</sub> alkynyl, cycloalkyl, aryl, heterocyclyl, C<sub>1</sub>-C<sub>3</sub> alkyl-O-C<sub>1</sub>-C<sub>3</sub> alkyl, C<sub>1</sub>-C<sub>3</sub> alkyl-S-C<sub>1</sub>-C<sub>3</sub> alkyl, C<sub>1</sub>-C<sub>3</sub> alkyl-NH-(C<sub>1</sub>-C<sub>3</sub> alkyl)-, cycloalkyl(C<sub>1</sub>-C<sub>3</sub> alkyl)-, heterocyclic(C<sub>1</sub>-C<sub>3</sub> alkyl)- or aryl(C<sub>1</sub>-C<sub>3</sub> alkyl)- group; and

A represents a primary, secondary or tertiary amino group or a group -R<sub>6</sub>, -OR<sub>6</sub>, wherein R<sub>6</sub> is a substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, cycloalkyl, aryl, heterocyclyl, C<sub>1</sub>-C<sub>3</sub> alkyl-O-(C<sub>1</sub>-C<sub>3</sub> alkyl)-I, C<sub>1</sub>-C<sub>3</sub> alkyl-S-(C<sub>1</sub>-C<sub>3</sub> alkyl)-, C<sub>1</sub>-C<sub>3</sub> alkyl-NH-(C<sub>1</sub>-C<sub>3</sub> alkyl)-, cycloalkyl(C<sub>1</sub>-C<sub>3</sub> alkyl)-, heterocyclic(C<sub>1</sub>-C<sub>3</sub> alkyl)-I or aryl(C<sub>1</sub>-C<sub>3</sub> alkyl)- group.

2. A compound as claimed in claim 1 wherein Q is an N-formyl hydroxylamine group -N(OH)CH(=O).
3. A compound as claimed in claim 1 or claim 2 wherein -Y- is -C(=O)- or -SO<sub>2</sub>-.
4. A compound as claimed in any of the preceding claims wherein R<sub>1</sub> is hydrogen.
5. A compound as claimed in any of the preceding claims wherein R<sub>2</sub> is optionally substituted C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> alkenyl, C<sub>3</sub>-C<sub>6</sub> alkynyl or cycloalkyl; phenyl(C<sub>1</sub>-C<sub>6</sub> alkyl)-, phenyl(C<sub>3</sub>-C<sub>6</sub> alkenyl)- or phenyl(C<sub>3</sub>-C<sub>6</sub> alkynyl)- optionally substituted in the phenyl ring; cycloalkyl(C<sub>1</sub>-C<sub>6</sub> alkyl)-, cycloalkyl(C<sub>3</sub>-C<sub>6</sub> alkenyl)- or cycloalkyl(C<sub>3</sub>-C<sub>6</sub> alkynyl)- optionally substituted in the cycloalkyl ring; or CH<sub>3</sub>(CH<sub>2</sub>)<sub>p</sub>O(CH<sub>2</sub>)<sub>q</sub>- or CH<sub>3</sub>(CH<sub>2</sub>)<sub>p</sub>S(CH<sub>2</sub>)<sub>q</sub>-, wherein p is 0, 1, 2 or 3 and q is 1, 2 or 3.
6. A compound as claimed in any of claims 1 to 4 wherein R<sub>2</sub> is methyl, ethyl, n-

or iso-propyl, n- or iso-butyl, n-pentyl, iso-pentyl, 3-methyl-but-1-yl, n-hexyl, n-heptyl, n-acetyl, n-octyl, methylsulfanylethyl, ethylsulfanyl methyl, 2-methoxyethyl, 2-ethoxyethyl, 2-ethoxymethyl, 3-hydroxypropyl, allyl, 3-phenylprop-3-en-1-yl, prop-2-yn-1-yl, 3-phenylprop-2-yn-1-yl, 3-(2-chlorophenyl)prop-2-yn-1-yl, but-2-yn-1-yl, cyclopentyl, cyclohexyl, cyclopentylmethyl, cyclopentylethyl, cyclopentylpropyl, cyclohexylmethyl, cyclohexylethyl, cyclohexylpropyl, furan-2-ylmethyl, furan-3-methyl, tetrahydrofuran-2-ylmethyl, tetrahydrofuran-2-ylmethyl, piperidinylmethyl, pyrid-2-ylmethyl, pyrid-3-ylmethyl, pyrid-4-ylmethyl, phenylpropyl, 4-chlorophenylpropyl, 4-methylphenylpropyl, 4-methoxyphenylpropyl, benzyl, 4-chlorobenzyl, 4-methylbenzyl, or 4-methoxybenzyl.

7. A compound as claimed in any of claims 1 to 4 wherein R<sub>2</sub> is (C<sub>1</sub>-C<sub>6</sub>)alkyl-, cycloalkylmethyl-, (C<sub>1</sub>-C<sub>3</sub>)alkyl-S-(C<sub>1</sub>-C<sub>3</sub>)alkyl-, or (C<sub>1</sub>-C<sub>3</sub>)alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)alkyl-.

8. A compound as claimed in claim 7 wherein R<sub>2</sub> is n-propyl, n-butyl, n-pentyl, cyclopentylmethyl, cyclopentylethyl, cyclohexylmethyl or cyclohexylethyl.

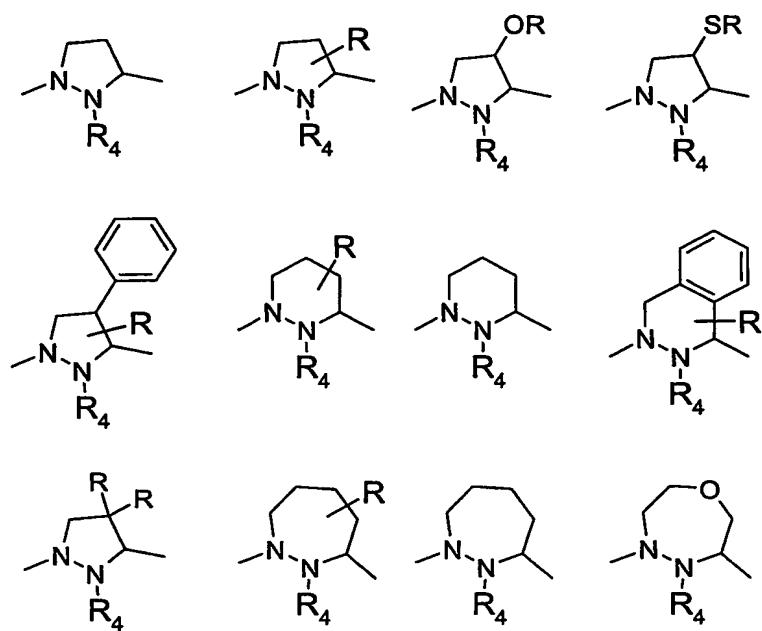
9. A compound as claimed in any of the preceding claims wherein R<sub>4</sub> is hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl-, cycloalkylmethyl-, (C<sub>1</sub>-C<sub>3</sub>)alkyl-S-(C<sub>1</sub>-C<sub>3</sub>)alkyl-, or (C<sub>1</sub>-C<sub>3</sub>)alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)alkyl-.

10. A compound as claimed in claim 9 wherein R<sub>4</sub> is hydrogen, methyl, ethyl, n-propyl, n-butyl, n-pentyl, cyclopentylmethyl, cyclopentylethyl, cyclohexylmethyl or cyclohexylethyl.

11. A compound as claimed in any of the preceding claims wherein R<sub>3</sub> and R<sub>5</sub>, when not part of a ring, are independently hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl-, cycloalkylmethyl-, (C<sub>1</sub>-C<sub>3</sub>)alkyl-S-(C<sub>1</sub>-C<sub>3</sub>)alkyl-, or (C<sub>1</sub>-C<sub>3</sub>)alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)alkyl-.

12. A compound as claimed in claim 11 wherein R<sub>3</sub> and R<sub>5</sub> are independently hydrogen, methyl, ethyl, n-propyl, n-butyl, n-pentyl, cyclopentylmethyl, cyclopentylethyl, cyclohexylmethyl or cyclohexylethyl.

13. A compound as claimed in any of claims 1 to 10 wherein R<sub>3</sub> and R<sub>5</sub> taken together with the carbon and nitrogen atoms to which they are respectively attached form the following rings, wherein any sulfur atom present as a ring member may be oxidised to -SO- or -SO<sub>2</sub>-, R<sub>4</sub> is as defined in any preceding claim, and R represents hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl:



14. A compound as claimed in any of the preceding claims wherein A a group -NR<sub>6</sub>R<sub>7</sub>, -R<sub>6</sub>, or -OR<sub>6</sub> wherein R<sub>6</sub> and R<sub>7</sub> independently represent a radical of formula (IV)



wherein

m, p and n are independently 0 or 1;

Z represents hydrogen or a carbocyclic or heterocyclic ring of 5 to 7 ring atoms which is optionally fused to a saturated or unsaturated carbocyclic or heterocyclic second ring of 5 to 7 ring atoms;

Alk<sup>1</sup> and Alk<sup>2</sup> independently represent divalent C<sub>1</sub>-C<sub>3</sub> alkylene radicals;

X represents -O-, -S-, -S(O)-, -S(O<sub>2</sub>)-, -C(=O)-, -NH-, -NR<sub>7</sub>- where R<sub>7</sub> is C<sub>1</sub>-C<sub>3</sub> alkyl;

and wherein

Alk<sup>1</sup>, Alk<sup>2</sup> and Z when other than hydrogen, independently are optionally substituted by

(C<sub>1</sub>-C<sub>3</sub>)alkyl, (C<sub>2</sub>-C<sub>3</sub>)alkenyl, or (C<sub>2</sub>-C<sub>3</sub>)alkynyl,  
phenyl, optionally substituted by (C<sub>1</sub>-C<sub>3</sub>)alkyl, (C<sub>1</sub>-C<sub>3</sub>)alkoxy, halo, nitro,  
amino, mono- or di-(C<sub>1</sub>-C<sub>3</sub>)alkylamino, cyano or trifluoromethyl;

monocyclic 5 or 6-membered heterocyclic, optionally substituted by (C<sub>1</sub>-C<sub>3</sub>)alkyl, (C<sub>1</sub>-C<sub>3</sub>)alkoxy, halo, nitro, amino, mono- or di-(C<sub>1</sub>-C<sub>3</sub>)alkylamino, cyano or trifluoromethyl  
benzyl, optionally substituted in the phenyl ring by (C<sub>1</sub>-C<sub>3</sub>)alkyl, (C<sub>1</sub>-C<sub>3</sub>)alkoxy,  
halo, nitro, amino, mono- or di-(C<sub>1</sub>-C<sub>3</sub>)alkylamino, cyano or trifluoromethyl,  
hydroxy, phenoxy, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, or hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
mercapto, (C<sub>1</sub>-C<sub>6</sub>)alkylthio or mercapto(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
oxo,  
nitro,  
cyano  
halo  
-COOH, or -COOR<sup>A</sup>,  
-CONH<sub>2</sub>, -CONHR<sup>A</sup>, or -CONR<sup>A</sup>R<sup>B</sup>  
-COR<sup>A</sup>, -SO<sub>2</sub>R<sup>A</sup>,  
-NHCOR<sup>A</sup>,  
-NH<sub>2</sub>, -NHR<sup>A</sup>, or -NR<sup>A</sup>R<sup>B</sup>,  
wherein R<sup>A</sup> and R<sup>B</sup> are independently a (C<sub>1</sub>-C<sub>6</sub>) alkyl group, R<sup>A</sup> and R<sup>B</sup> taken together with the nitrogen

atom to which they are attached form a 5- or 6-membered heterocyclic ring which may be substituted by (C<sub>1</sub>-C<sub>3</sub>)alkyl, hydroxy, or hydroxy(C<sub>1</sub>-C<sub>3</sub>)alkyl.

15. A compound as claimed in any of claims 1 to 13 wherein A is a group -NR<sub>8</sub>R<sub>9</sub> wherein R<sub>8</sub> and R<sub>9</sub> when taken together with the nitrogen atom to which they are attached form a saturated heterocyclic ring of 5 to 8 atoms optionally fused to a saturated or unsaturated carbocyclic or heterocyclic second ring of 5 to 7 ring atoms, any of which rings being optionally substituted by a radical of formula (II) as defined above.

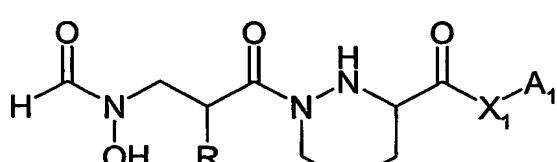
16 A compound as claimed in claim 15 wherein R<sub>8</sub> and R<sub>9</sub> when taken together with the nitrogen atom to which they are attached form an optionally substituted 1-pyrrolidinyl, piperidin-1-yl, 1-piperazinyl, hexahydro-1-pyridazinyl, morpholin-4-yl, tetrahydro-1,4-thiazin-4-yl, tetrahydro-1,4-thiazin-4-yl 1-oxide, tetrahydro-1,4-thiazin-4-yl 1,1-dioxide, hexahydroazipino, thiomorpholino, diazepino, or thiazolidinyl ring.

17 A compound as claimed in claim 15 wherein R<sub>8</sub> and R<sub>9</sub> when taken together with the nitrogen atom to which they are attached form an optionally substituted piperidin-1-yl or 1-piperazinyl ring.

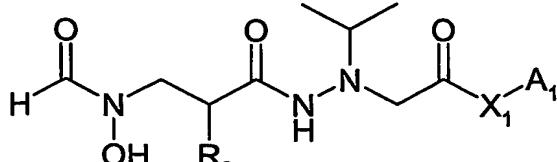
18. A compound as claimed in claim 14 wherein in the group (IV) Alk<sup>1</sup> and Alk<sup>2</sup> independently represent -(CH<sub>2</sub>)- or -(CH<sub>2</sub>CH<sub>2</sub>)-.

19 A compound as claimed in claim 14 or claim 18 wherein in the group (IV) m is 0, p is 1, and X is -C(=O)- or -S(O<sub>2</sub>)-.

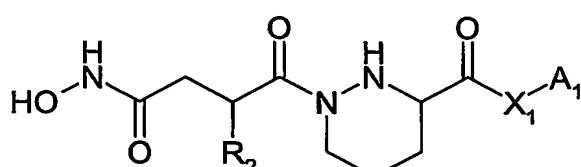
20. A compound as claimed in claim 1 of formulae (IIA) - (IID).



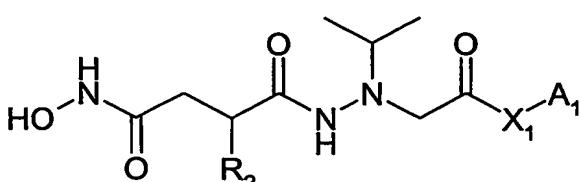
(IIA)



(IIB)



(IIC)



(IID)

wherein R<sub>2</sub> is as defined in any of the preceding claims;

$X_1$  is a bond,  $C_1-C_3$  alkylene, -NH- or -O-; and

$A_1$  is optionally substituted C<sub>1</sub>-C<sub>6</sub> alkyl, cycloalkyl, aryl, or heterocyclic, for example methyl, ethyl phenyl, cyclopentyl, cyclohexyl, 2- or 3-furanyl, 2- or 3-thienyl, 2-, 3- or 4-pyridyl, 3-, 4- or 5-pyrazolyl, 3-, 4- or 5-oxazolyl, or 3-, 4- or 5-thiazolyl, methoxymethyl, 3,5-bis-(trifluoromethyl)phenyl, 4-trifluoromethylphenyl, 4-methoxyphenyl, 3,4-methylenedioxyphenyl, 4-fluorophenyl benzyl, 3-pyridyl, 4-pyridyl, cyclohexyl, 1,3-dimethylpyrazol-5-yl, 1-methylimidazol-5-yl, and 2-[morpholin-1-yl]pyrid-5-yl.

21. A compound as claimed in claim 20 wherein R<sub>2</sub> is n-propyl, n-butyl, n-pentyl, cyclopentylmethyl, cyclopentylethyl, cyclohexylmethyl or cyclohexylethyl;

$X_1$  is a bond,  $-\text{CH}_2-$ ,  $-\text{CH}_2\text{CH}_2-$ ,  $-\text{CH}_2\text{CH}_2\text{CH}_2-$ ,  $-\text{NH}-$  or  $-\text{O}-$ ; and

**A<sub>1</sub>** is methyl, ethyl phenyl, cyclopentyl, cyclohexyl, 2- or 3-furanyl, 2- or 3-thienyl, 2-, 3- or 4-pyridyl, 3-, 4- or 5-pyrazolyl, 3-, 4- or 5-oxazolyl, or 3-, 4- or 5-thiazolyl,

methoxymethyl, 3,5-bis-(trifluoromethyl)phenyl, 4-trifluoromethylphenyl, 4-methoxyphenyl, 3,4-methylenedioxyphenyl, 4-fluorophenyl benzyl, 3-pyridyl, 4-pyridyl, cyclohexyl, 1,3-dimethylpyrazol-5-yl, 1-methylimidazol-5-yl, or 2-[ morpholin-1-yl]pyrid-5-yl.

22. A method for the treatment of bacterial infections in humans and non-human mammals, which comprises administering to a subject suffering such infection an antibacterially effective dose of a compound as claimed in any of the preceding claims.

23. The use of a compound as claimed in any of claims 1 to 21 for inhibiting bacterial growth in vitro and in vivo in mammals.

24. The use of a compound as claimed in any of claims 1 to 21 for the manufacture of a composition for treating bacterial infection by inhibiting bacterial growth.

25. A method for the treatment of bacterial contamination by applying an antibacterially effective amount of a compound as claimed in any of claims 1 to 21 to the site of contamination.

26. A pharmaceutical or veterinary composition comprising a compound as claimed in any of claims 1 to 21 together with a pharmaceutically or veterinarily acceptable carrier or excipient.